

Twin Falls Irrigation Tract Return Flow Monitoring Update - April 7, 2010

Developments

- Twin Falls tract return flows needed for model calibration
- USDA/ARS completed salt balance study in 2008
 - ARS focused on upper watershed sediment study
 - ARS still monitoring 6 locations
 - L10 power plant no longer monitored by ARS
- Dick Lutz retired

Developments (cont'd)

- LSLQ return split into S Coulee (IDWR) and Q Coulee (ARS)
- New weir installed on I Coulee in August 2007





Developments (cont'd)

- Irrigation Drain near Hansen and Twin Falls Coulee are now rated sections



W. drain nr Tuttle (Drain to Malad River)

th

D-17 drain
nr Heyburn



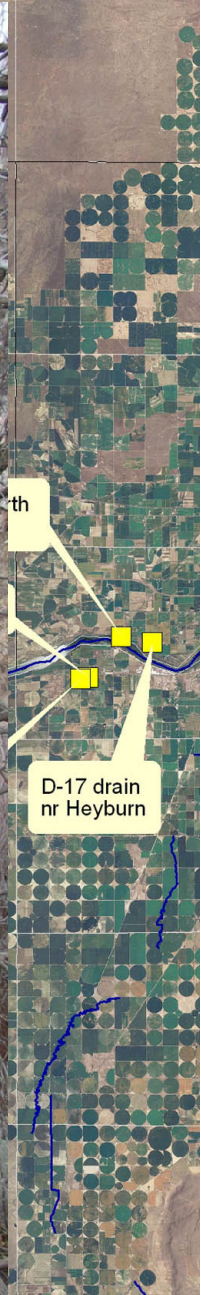
W. drain nr Tuttle (Drain to Malad River)

th

D-17 drain
nr Heyburn

Status

- ARS estimates >90% of returns (irrigation water and baseflow) are currently measured
- Twin Falls tract irrigation returns are relatively small fraction of Kimberly to King Hill reach gains
- Primary south side surface water gains from Rock Creek, Mud Creek, Cedar Draw, Deep Creek, and Salmon Falls Creek





W. drain nr Tuttle (Drain to Malad River)

th

D-17 drain
nr Heyburn



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th

D-17 drain
nr Heyburn



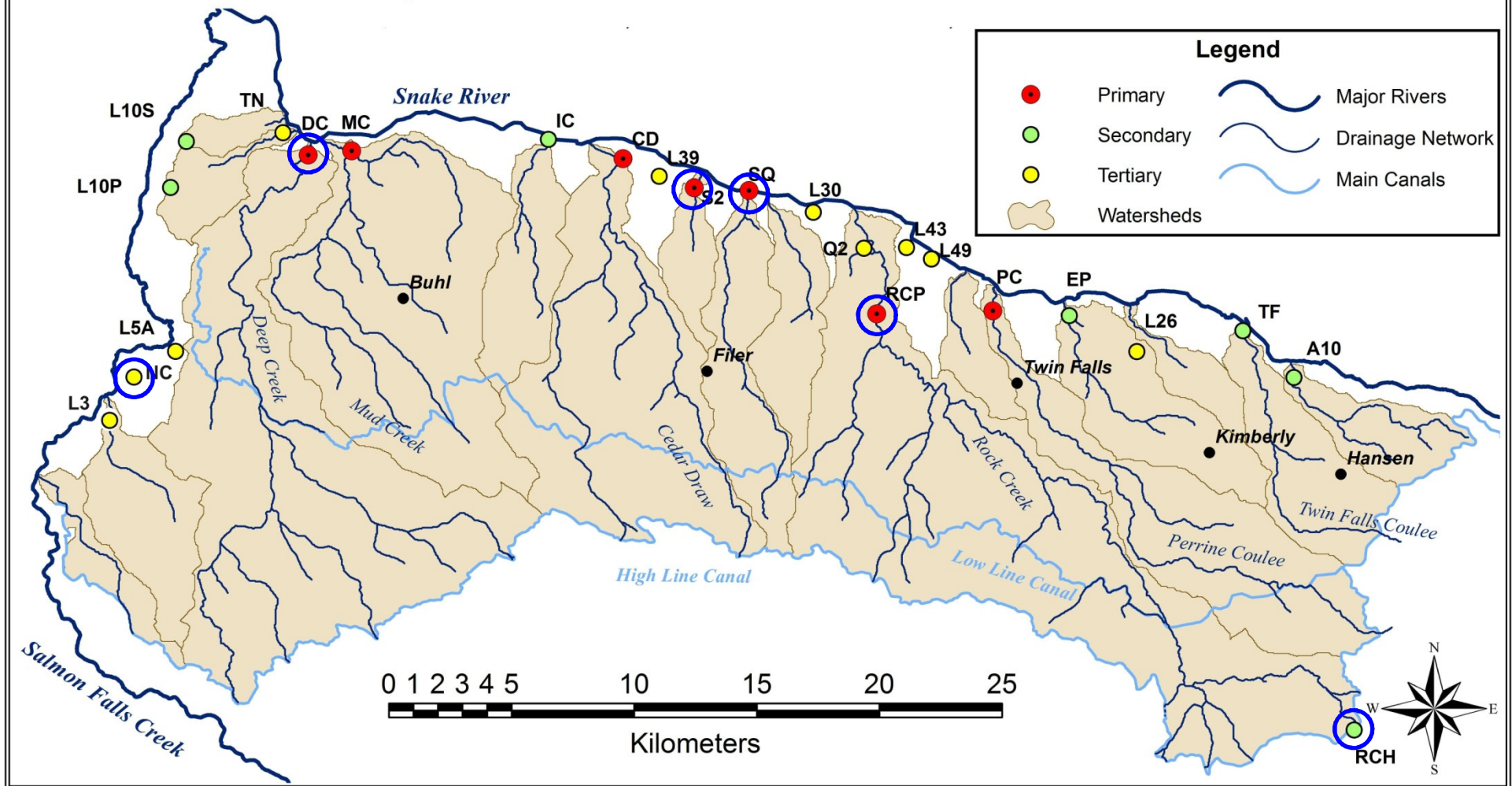
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D-17 drain
nr Heyburn

Current Return Flow Sites

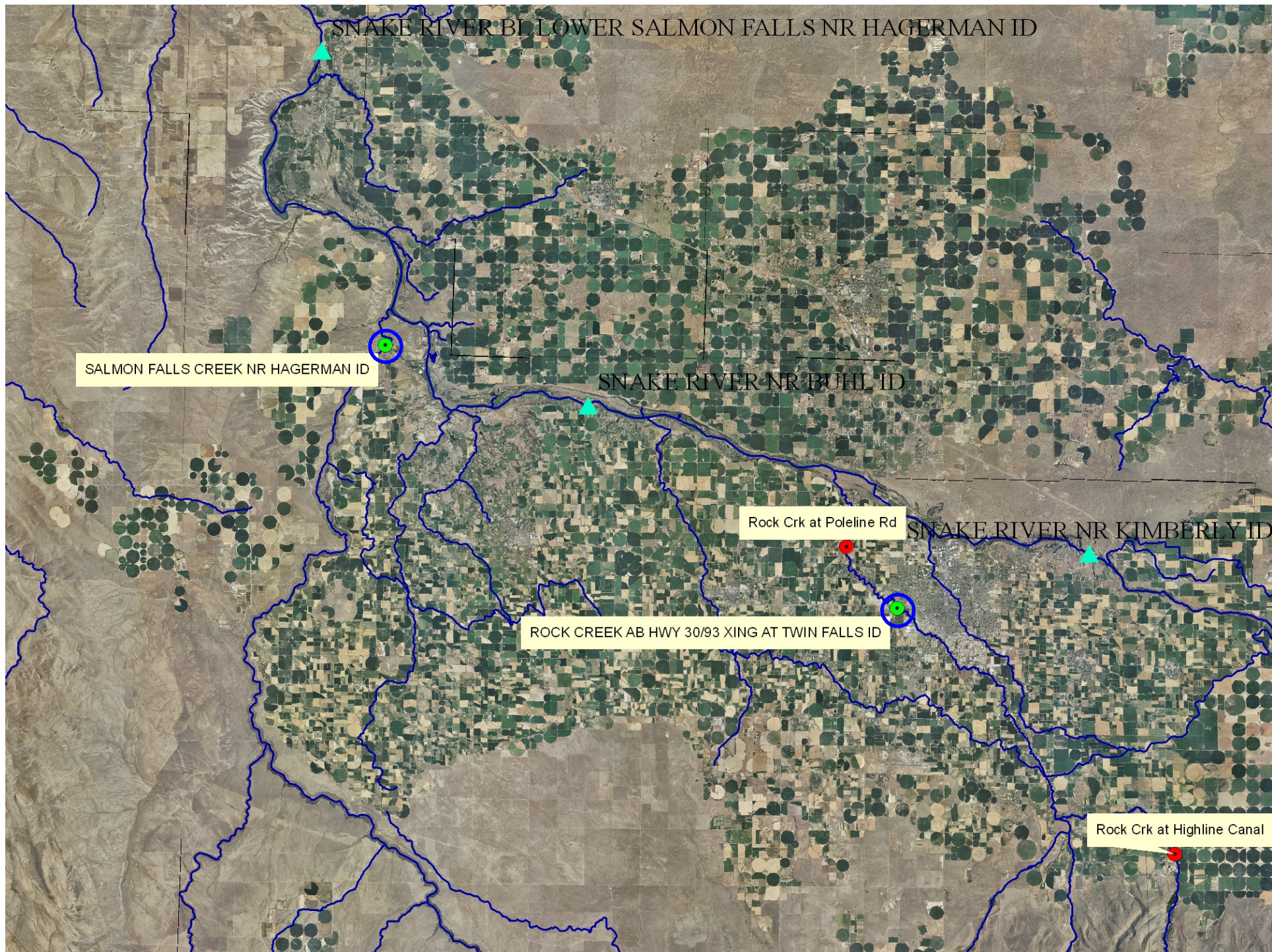
- 17 Twin Falls Irrigation Tract gages
 - 6 ARS/TFCC gages
 - Primary
 - Deep Creek (rated section)
 - Q Coulee (rated section)
 - Rock Creek Pole Line Road (former USGS rated section)
 - S2 Coulee (weir)
 - Secondary
 - Rock Creek High Line Canal
 - Tertiary
 - N Coulee (weir)

Return Flow Monitoring Sites in Twin Falls Irrigation Tract, Jan. 1, 2005-Dec. 31, 2007



Current Return Sites (cont'd)

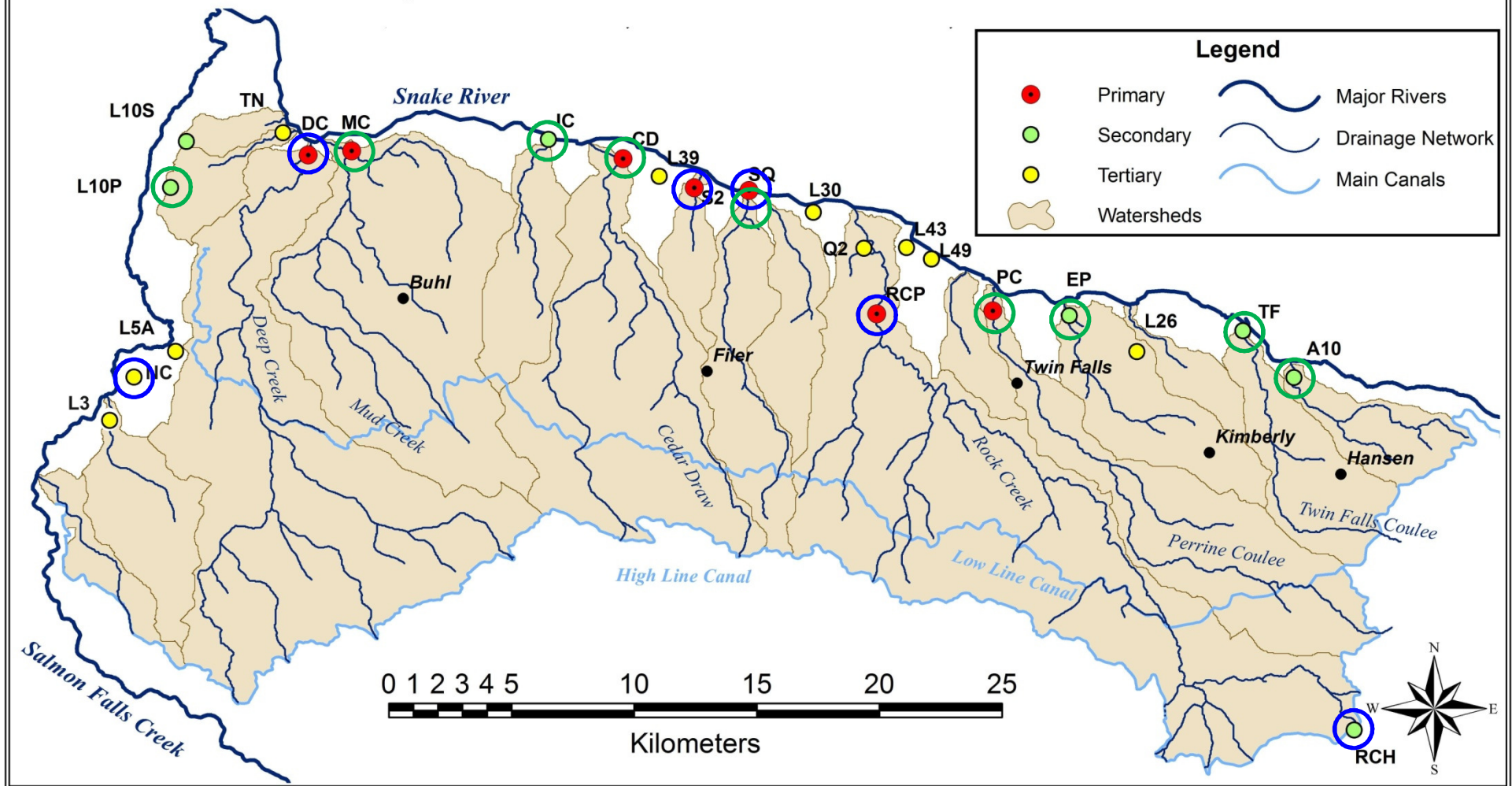
- 2 USGS gages
 - **13092747 ROCK CREEK AB HWY 30/93 XING**
 - **13108150 SALMON FALLS CREEK NR
HAGERMAN**



Current Return Sites (cont'd)

- 7 IDWR/TFCC gages
 - A10 Irrigation Drain near Hansen
 - Cedar Draw near Filer
 - East Perrine Fish Hatchery Waste 0
 - Mud Creek near Buhl
 - S Coulee
 - Twin Falls Coulee
 - Waste I near Buhl (I Coulee)
- 1 TFCC gage (Perrine Coulee near Twin Falls)
- Lateral 10 power plant based on power data

Return Flow Monitoring Sites in Twin Falls Irrigation Tract, Jan. 1, 2005-Dec. 31, 2007



Current Return Sites (cont'd)

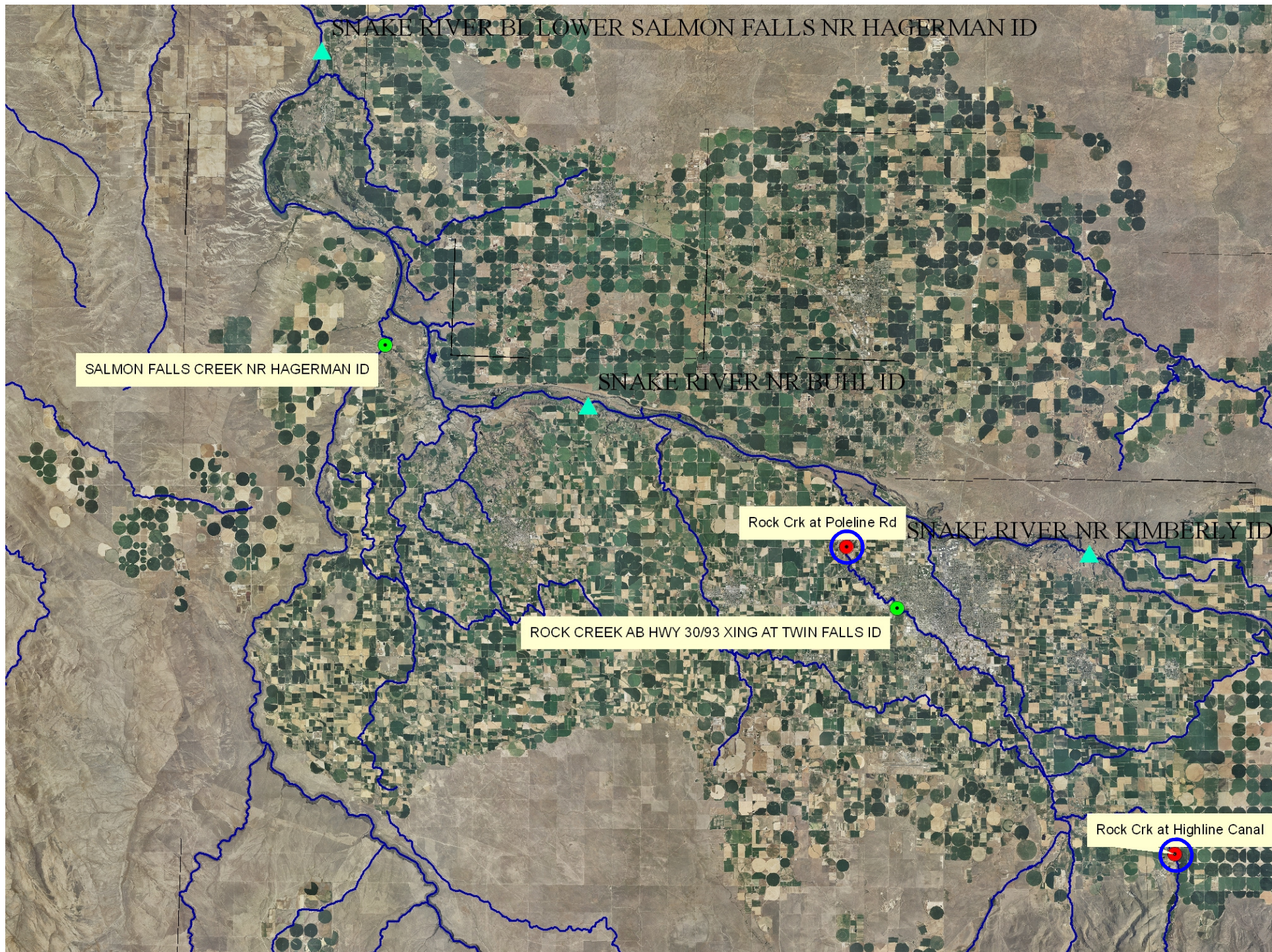
- All 7 primary locations currently monitored (8 locations with SQ split)
- 6 of 7 secondary locations currently monitored
 - L10S into Salmon Falls Creek is not monitored but upstream of Salmon Falls Creek near Hagerman
- N Coulee is a tertiary location

To do

- Compile historical data in single database w/ total flows into Snake River, not just the irrigation component
- Process 2009 data

To do (cont'd)

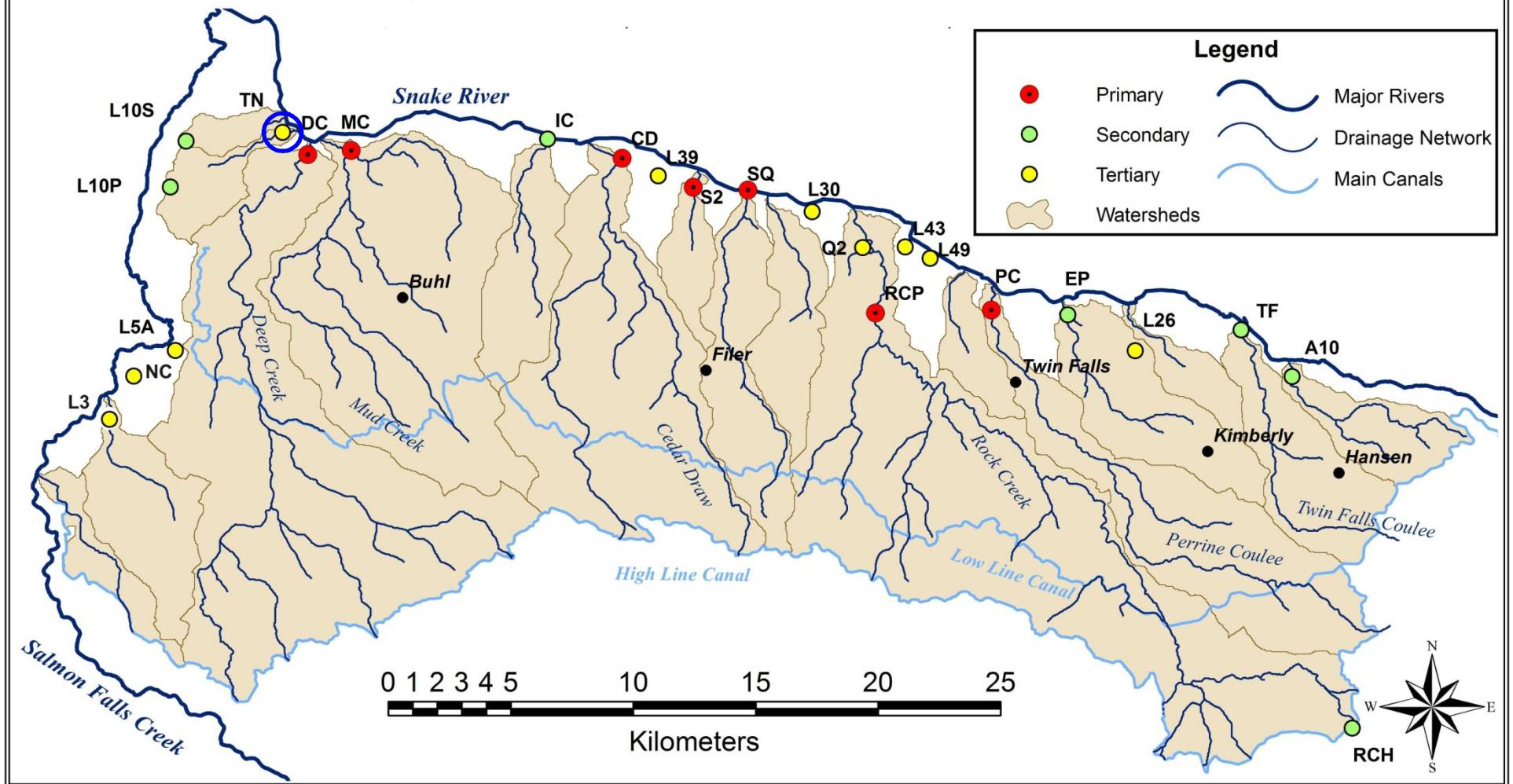
- Meet w/ ARS to discuss future plans for their return flow monitoring network
- Evaluate necessity of Rock Creek High Line and Rock Creek Pole Line gages



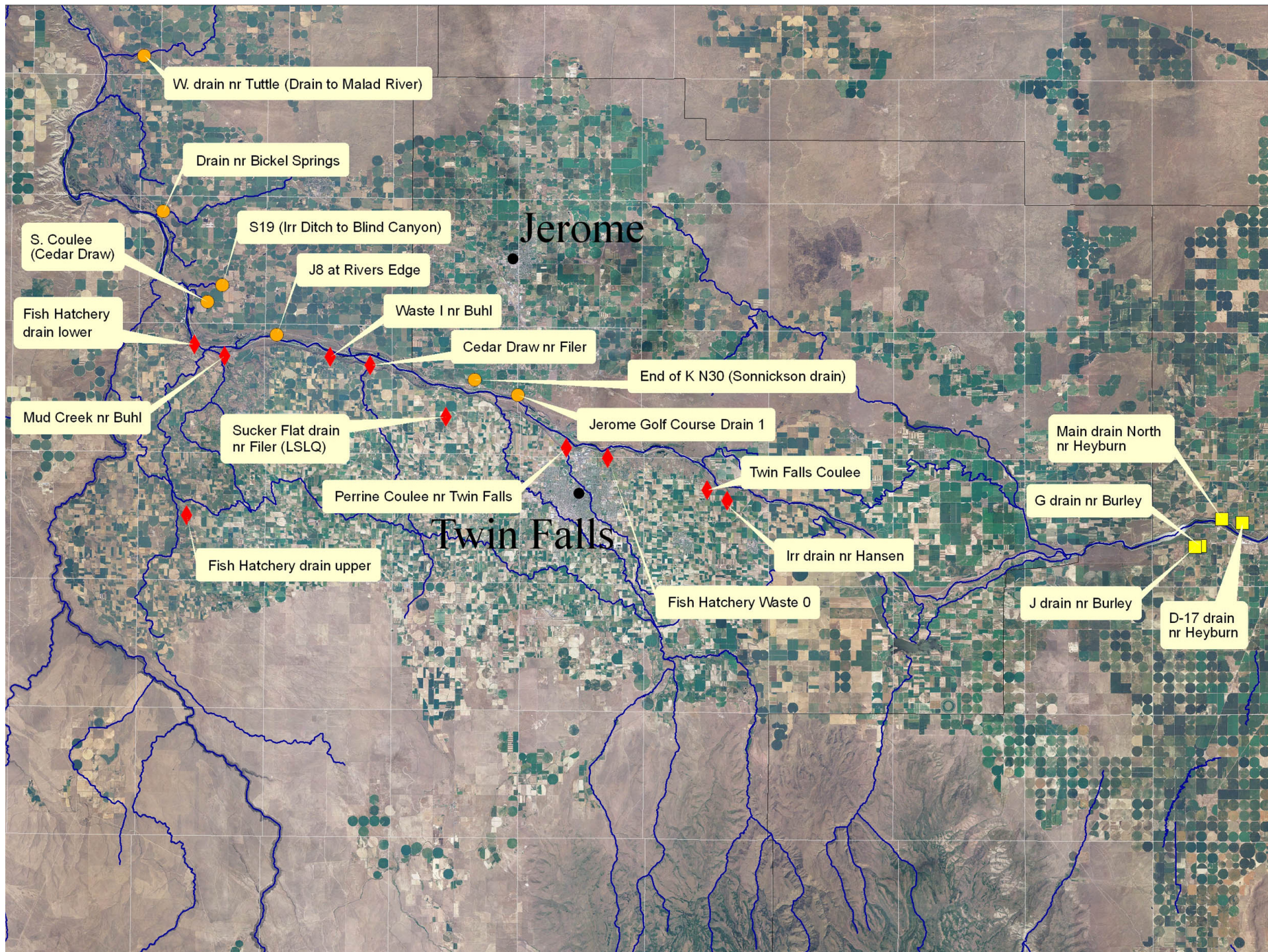
To do (cont'd)

- Obtain flow data for Leo Ray hatchery (TN)
- Compare IDWR baseflow estimates w/ ARS estimates
- Other??

Return Flow Monitoring Sites in Twin Falls Irrigation Tract, Jan. 1, 2005-Dec. 31, 2007

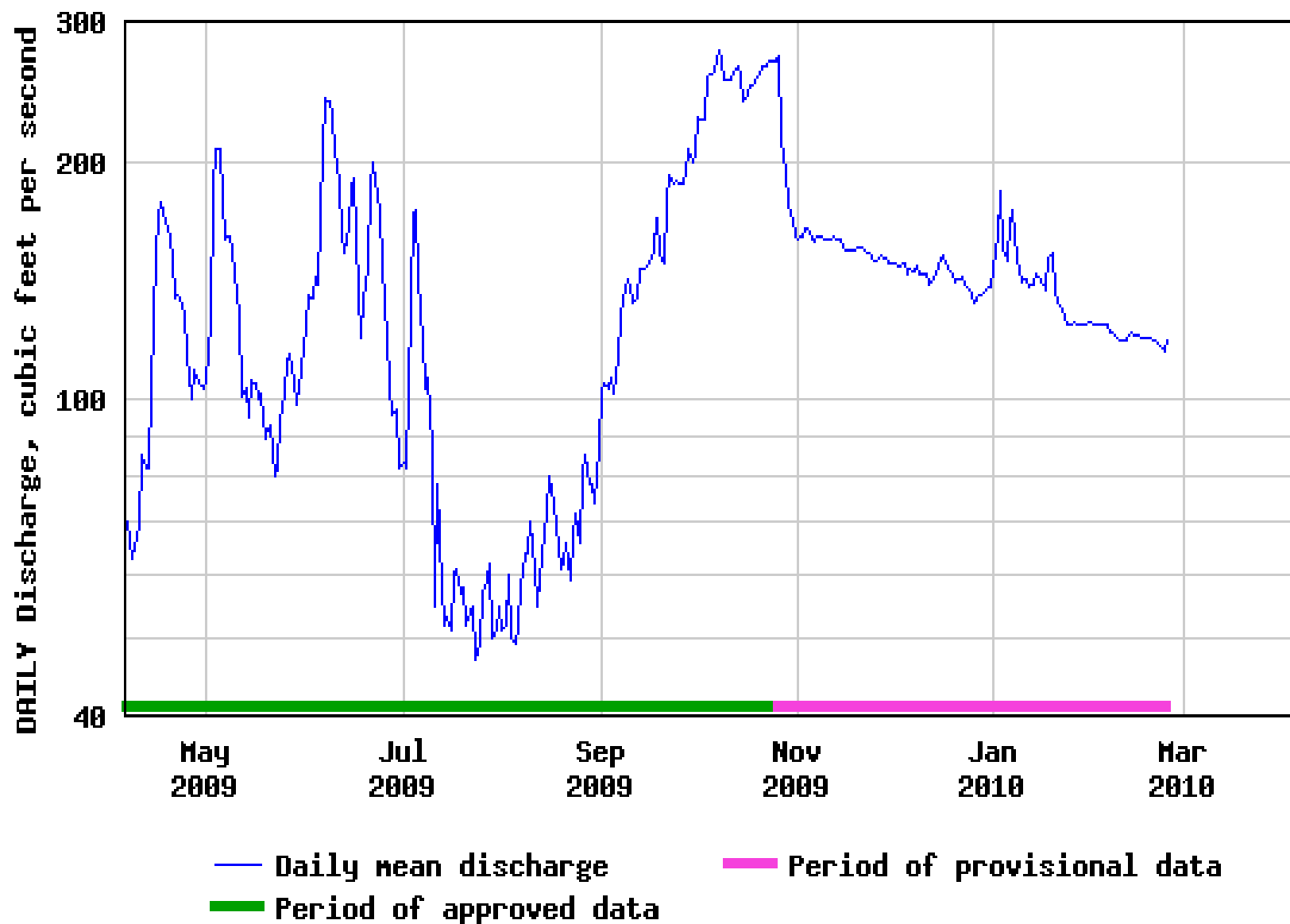


END





USGS 13108150 SALMON FALLS CREEK NR HAGERMAN ID



Deep Creek

